

Claims

1. Disposable sanitary product for absorbing body liquids such as diapers, incontinence pads, sanitary towels or panty liners, comprising a top sheet at least sections of which are permeable to liquid, a bottom sheet at least sections of which are impermeable to liquid and an absorbent body disposed between the top sheet and the bottom sheet, the absorbent body comprising a first storage layer (20, 26, 30) for permanently storing body liquids, which comprises 5 to 30 weight % of hydrophilic melt-blown microfibers (22), 70 to 95 weight % of particulate superabsorbing material (24) and optionally up to maximally 10 weight % of a further particulate or fibrous component, wherein the mass per unit area of the melt-blown microfibers (22) is 6 to 25 g/m², wherein the melt-blown microfibers (22) are connected to each other by a plurality of melt connections to ensure stability in the wet state and in such a manner that the melt-blown microfibers (22) form a dense three-dimensional network which surrounds and immobilizes the particulate superabsorbing material (24), and wherein no or only a few melt connections are provided between the melt-blown microfibers (22) and the particulate superabsorbing material (24), and the storage layer (20, 26, 30) has a strength in the wet state, measured in the machine direction, of at least 40% of the strength in the dry state.
2. Sanitary product according to claim 1, characterized in that the average size of the particulate superabsorbing material D_{SAP} is 100 to 800 μm and the thickness of the first storage layer D_{1SP} is between $D_{SAP} * 1.5$ and $D_{SAP} * 5$, in particular, between $D_{SAP} * 1.5$ and $D_{SAP} * 4$, in particular between $D_{SAP} * 1.5$ and $D_{SAP} * 3$, and preferentially between $D_{SAP} * 1.5$ and $D_{SAP} * 2.5$.

3. Sanitary product according to any one of the preceding claims, characterized in that the absorption level of the first storage layer (20, 26, 30) is at least 2 cm, in particular at least 3 cm, in particular at least 4 cm, in particular, at least 5 cm and moreover in particular at least 6 cm.
4. Sanitary product according to any one of the preceding claims, characterized in that the first storage layer (26) has an absorbent layer (28) facing the bottom sheet, which comprises melt-blown microfibers of an amount of 100 to 50 weight %, in particular 100 to 60 weight %, in particular 100 to 70 weight %, in particular 100 to 80 weight % and moreover, in particular, 100 to 90 weight %.
5. Sanitary product according to any one of the preceding claims, characterized in that the first storage layer (26) has an absorbent layer (28) facing the top sheet, which comprises melt-blown microfibers in an amount of 100 to 50 weight %, in particular 100 to 60 weight %, in particular 100 to 70 weight %, in particular 100 to 80 weight % and moreover, in particular, 100 to 90 weight %.
6. Sanitary product according to any one of the claims 4 or 5, characterized in that the mass per unit area of the absorbent layer (28, 32) is 2 to 10 g/m², in particular 2 to 5 g/m², and the fiber diameter of the melt-blown microfibers of the absorbent layer (28, 32) is smaller than the fiber diameter of the melt-blown microfibers (22) of the first storage layer (20).
7. Sanitary product according to any one of the claims 4 through 6, characterized in that the melt-blown microfibers of the absorbent layer (28, 32) are thermally compatible with the melt-blown microfibers (22) of the first storage layer (20).

8. Sanitary product according to any one of the preceding claims, characterized in that a porous preferably fibrous layer is disposed between the first storage layer (20) and the top sheet, which rapidly absorbs liquid.
9. Sanitary product according to any one of the preceding claims, characterized in that the strength in the wet state is at least 50%, in particular, at least 60%, with particular preference at least 70%, with particular advantage at least 80% and preferentially at least 90% of the strength in the dry state.
10. Particle according to any one of the preceding claims, characterized in that the storage layer consists of melt-blown microfibers and particulate superabsorbing material.